Nigel Roulet

List of Publications by Year
in descending order

195 papers	18,211 citations	10389 72 h-index	14759 127 g-index
214 all docs	214 docs citations	214 times ranked	11701 citing authors

#	Article	IF	Citations
1	Sensitivity of the carbon cycle in the Arctic to climate change. Ecological Monographs, 2009, 79, 523-555.	5.4	814
2	Peatlands and the carbon cycle: from local processes to global implications â€“ a synthesis. Biogeosciences, 2008, 5, 1475-1491.	3.3	630
3	Contemporary carbon balance and late Holocene carbon accumulation in a northern peatland. Global Change Biology, 2007, 13, 397-411.	9.5	521
4	Arctic and boreal ecosystems of western North America as components of the climate system. Global Change Biology, 2000, 6, 211-223.	9.5	488
5	Browning the waters. Nature, 2006, 444, 283-284.	27.8	356
6	Uncertainty in Predicting the Effect of Climatic Change on the Carbon Cycling of Canadian Peatlands. Climatic Change, 1998, 40, 229-245.	3.6	337
7	EFFECTS OF CLIMATE CHANGE ON THE FRESHWATERS OF ARCTIC AND SUBARCTIC NORTH AMERICA. Hydrological Processes, 1997, 11, 873-902.	2.6	329
8	Peatlands in the Earthâ€™s 21st century climate system. Environmental Reviews, 2011, 19, 371-396.	4.5	323
9	Plant biomass and production and CO2 exchange in an ombrotrophic bog. Journal of Ecology, 2002, 90, 25-36.	4.0	315
10	Remote sensing of the land surface for studies of global change: Models â€” algorithms â€” experiments. Remote Sensing of Environment, 1995, 51, 3-26.	11.0	309
11	Interannual variability in the peatland-atmosphere carbon dioxide exchange at an ombrotrophic bog. Global Biogeochemical Cycles, 2003, 17, n/a-n/a.	4.9	307
12	Increases in Fluxes of Greenhouse Gases and Methyl Mercury following FloodingÂofÂanÂExperimentalÂReservoirâ€. Environmental Science & Technology, 1997, 31, 1334-1344.	10.0	305
13	Production and Loss of Methylmercury and Loss of Total Mercury from Boreal Forest Catchments Containing Different Types of Wetlands. Environmental Science & Technology, 1996, 30, 2719-2729.	10.0	287
14	Holocene radiative forcing impact of northern peatland carbon accumulation and methane emissions. Global Change Biology, 2007, 13, 1079-1088.	9.5	283
15	A modelâ€data comparison of gross primary productivity: Results from the North American Carbon Program site synthesis. Journal of Geophysical Research, 2012, 117, .	3.3	274
16	Parametrization of peatland hydraulic properties for the Canadian land surface scheme. Atmosphere - Ocean, 2000, 38, 141-160.	1.6	271
17	Methane flux: Water table relations in northern wetlands. Geophysical Research Letters, 1993, 20, 587-590.	4.0	263
18	Modeling Northern Peatland Decomposition and Peat Accumulation. Ecosystems, 2001, 4, 479-498.	3.4	250

#	ARTICLE	IF	CITATIONS
19	Ecosystem Respiration in a Cool Temperate Bog Depends on Peat Temperature But Not Water Table. Ecosystems, 2005, 8, 619-629.	3.4	247
20	Peatlands, carbon storage, greenhouse gases, and the Kyoto Protocol: Prospects and significance for Canada. Wetlands, 2000, 20, 605-615.	1.5	239
21	Wetlands In a Changing Climate: Science, Policy and Management. Wetlands, 2018, 38, 183-205.	1.5	234
22	Atmosphere-wetland carbon exchanges: Scale dependency of CO2and CH4exchange on the developmental topography of a peatland. Global Biogeochemical Cycles, 1996, 10, 233-245.	4.9	211
23	Modelling and analysis of peatlands as dynamical systems. Journal of Ecology, 2000, 88, 230-242.	4.0	210
24	Spatial and temporal variations of methane flux from subarctic/northern boreal fens. Global Biogeochemical Cycles, 1990, 4, 29-46.	4.9	201
25	How northern peatlands influence the Earth's radiative budget: Sustained methane emission versus sustained carbon sequestration. Journal of Geophysical Research, 2006, 111, .	3.3	196
26	Low boreal wetlands as a source of atmospheric methane. Journal of Geophysical Research, 1992, 97, 3739-3749.	3.3	195
27	Carbon balance of a boreal patterned peatland. Global Change Biology, 2000, 6, 87-97.	9.5	184
28	Annual and seasonal variability in evapotranspiration and water table at a shrub-covered bog in southern Ontario, Canada. Hydrological Processes, 2005, 19, 3533-3550.	2.6	182
29	A new model of Holocene peatland net primary production, decomposition, water balance, and peat accumulation. Earth System Dynamics, 2010, 1, 1-21.	7.1	182
30	Northern fens: methane flux and climatic change. Tellus, Series B: Chemical and Physical Meteorology, 1992, 44, 100-105.	1.6	179
31	Methane Emissions from Wetlands in the Midboreal Region of Northern Ontario, Canada. Ecology, 1993, 74, 2240-2254.	3.2	179
32	Groundwater-surface water interactions in headwater forested wetlands of the Canadian Shield. Journal of Hydrology, 1996, 181, 127-147.	5.4	172
33	The uncertain climate footprint of wetlands under human pressure. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4594-4599.	7.1	171
34	Water table control of CH4emission enhancement by vascular plants in boreal peatlands. Journal of Geophysical Research, 1996, 101, 22775-22785.	3.3	165
35	Relationship between ecosystem productivity and photosynthetically active radiation for northern peatlands. Global Biogeochemical Cycles, 1998, 12, 115-126.	4.9	165
36	Plant Species Numbers Predicted by a Topography-based Groundwater Flow Index. Ecosystems, 2005, 8, 430-441.	3.4	160

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37	In situ sulphate stimulation of mercury methylation in a boreal peatland: Toward a link between acid rain and methylmercury contamination in remote environments. Global Biogeochemical Cycles, 1999, 13, 743-750.	4.9	158
38	Annual cycle of CO2exchange at a bog peatland. Journal of Geophysical Research, 2001, 106, 3071-3081.	3.3	158
39	Peatlands and Their Role in the Global Carbon Cycle. Eos, 2011, 92, 97-98.	0.1	153
40	Flux to the atmosphere of CH4and CO2from wetland ponds on the Hudson Bay lowlands (HBLs). Journal of Geophysical Research, 1994, 99, 1495.	3.3	150
41	Hydrology and dissolved organic carbon biogeochemistry in an ombrotrophic bog. Hydrological Processes, 2001, 15, 3151-3166.	2.6	148
42	Nitrogen deposition and increased carbon accumulation in ombrotrophic peatlands in eastern Canada. Global Biogeochemical Cycles, 2004, 18, n/a-n/a.	4.9	147
43	Northern fens: methane flux and climatic change. Tellus, Series B: Chemical and Physical Meteorology, 2022, 44, 100.	1.6	145
44	Variability in exchange of CO₂ across 12 northern peatland and tundra sites. Global Change Biology, 2010, 16, 2436-2448.	9.5	144
45	Methane flux from drained northern peatlands: Effect of a persistent water table lowering on flux. Global Biogeochemical Cycles, 1993, 7, 749-769.	4.9	141
46	Groundwater flow and dissolved carbon movement in a boreal peatland. Journal of Hydrology, 1997, 191, 122-138.	5.4	140
47	Modeling seasonal to annual carbon balance of Mer Bleue Bog, Ontario, Canada. Global Biogeochemical Cycles, 2002, 16, 4-1-4-21.	4.9	138
48	Climate control of terrestrial carbon exchange across biomes and continents. Environmental Research Letters, 2010, 5, 034007.	5.2	137
49	Groundwater flow patterns in a large peatland. Journal of Hydrology, 2001, 246, 142-154.	5.4	136
50	The hydrology and methylmercury dynamics of a Precambrian shield headwater peatland. Water Resources Research, 1996, 32, 1785-1794.	4.2	134
51	Role of the Hudson Bay lowland as a source of atmospheric methane. Journal of Geophysical Research, 1994, 99, 1439.	3.3	128
52	Investigating hydrologic connectivity and its association with threshold change in runoff response in a temperate forested watershed. Hydrological Processes, 2007, 21, 3391-3408.	2.6	128
53	Effects of permafrost and hydrology on the composition and transport of dissolved organic carbon in a subarctic peatland complex. Journal of Geophysical Research, 2012, 117, .	3.3	125
54	A Multi-Year Record of Methane Flux at the Mer Bleue Bog, Southern Canada. Ecosystems, 2011, 14, 646-657.	3.4	123

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55	Microtopography and methane flux in boreal peatlands, northern Ontario, Canada. Canadian Journal of Botany, 1993, 71, 1056-1063.	1.1	118
56	The net carbon footprint of a newly created boreal hydroelectric reservoir. Global Biogeochemical Cycles, 2012, 26, .	4.9	117
57	Methane emissions from wetlands, southern Hudson Bay lowland. Journal of Geophysical Research, 1994, 99, 1455.	3.3	108
58	Increasing contribution of peatlands to boreal evapotranspiration in a warming climate. Nature Climate Change, 2020, 10, 555-560.	18.8	106
59	Antecedent moisture conditions and catchment morphology as controls on spatial patterns of runoff generation in small forest catchments. Journal of Hydrology, 2009, 377, 351-366.	5.4	105
60	Episodic fluxes of methane from subarctic fens. Canadian Journal of Soil Science, 1992, 72, 441-452.	1.2	97
61	Climate change reduces the capacity of northern peatlands to absorb the atmospheric carbon dioxide: The different responses of bogs and fens. Global Biogeochemical Cycles, 2014, 28, 1005-1024.	4.9	95
62	Greenhouse Gas Emissions from Canadian Peat Extraction, 1990â€“2000: A Life-cycle Analysis. Ambio, 2005, 34, 456-461.	5.5	93
63	Methane fluxes from three peatlands in the La Grande RiviÃ¨re watershed, James Bay lowland, Canada. Journal of Geophysical Research, 2007, 112, .	3.3	93
64	CO2and CH4flux between a boreal beaver pond and the atmosphere. Journal of Geophysical Research, 1997, 102, 29313-29319.	3.3	92
65	Late-summer carbon fluxes from Canadian forests and peatlands along an eastÂ–west continental transect. Canadian Journal of Forest Research, 2006, 36, 783-800.	1.7	91
66	Investigating the applicability of end-member mixing analysis (EMMA) across scale: A study of eight small, nested catchments in a temperate forested watershed. Water Resources Research, 2006, 42, .	4.2	90
67	McGill wetland model: evaluation of a peatland carbon simulator developed for global assessments. Biogeosciences, 2010, 7, 3517-3530.	3.3	86
68	Runoff generation in zero-order precambrian shield catchments: The stormflow response of a heterogeneous landscape. Hydrological Processes, 1994, 8, 369-388.	2.6	84
69	Net ecosystem CO2 exchange in a temperate cattail marsh in relation to biophysical properties. Agricultural and Forest Meteorology, 2008, 148, 69-81.	4.8	83
70	Assessing long-term hydrological and ecological responses to drainage in a raised bog using paleoecology and a hydrosequence. Journal of Vegetation Science, 2010, 21, 143-156.	2.2	83
71	Runoff mechanisms in a forested groundwater discharge wetland. Journal of Hydrology, 1993, 147, 37-60.	5.4	81
72	Hydrology of a wetland in the continuous permafrost region. Journal of Hydrology, 1986, 89, 73-91.	5.4	80

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73	Patterns of nitrogen and sulfur accumulation and retention in ombrotrophic bogs, eastern Canada. Global Change Biology, 2005, 11, 356-367.	9.5	79
74	Spring and Summer Runoff Hydrology of a Subarctic Patterned Wetland. Arctic and Alpine Research, 1998, 30, 285.	1.3	78
75	Net carbon accumulation of a highâ€latitude permafrost palsa mire similar to permafrostâ€free peatlands. Geophysical Research Letters, 2012, 39, .	4.0	76
76	The baseflow and storm flow hydrology of a precambrian shield headwater peatland. Hydrological Processes, 1998, 12, 57-72.	2.6	72
77	The effect of atmospheric turbulence and chamber deployment period on autochamber CO₂ and CH₄ flux measurements in an ombrotrophic peatland. Biogeosciences, 2012, 9, 3305-3322.	3.3	71
78	Multiâ€year net ecosystem carbon balance of a restored peatland reveals a return to carbon sink. Global Change Biology, 2018, 24, 5751-5768.	9.5	71
79	Tropical pasture carbon cycling: relationships between C source/sink strength, above-ground biomass and grazing. Ecology Letters, 2002, 5, 367-376.	6.4	70
80	Maintaining the role of Canadaâ€™s forests and peatlands in climate regulation. Forestry Chronicle, 2010, 86, 434-443.	0.6	69
81	The effect of forestry drainage practices on the emission of methane from northern peatlands. Canadian Journal of Forest Research, 1995, 25, 491-499.	1.7	68
82	A comparison of evaporation rates from two fens of the Hudson Bay Lowland. Aquatic Botany, 1992, 44, 59-69.	1.6	67
83	Belowground carbon turnover in a temperate ombrotrophic bog. Global Biogeochemical Cycles, 2007, 21, .	4.9	67
84	Do Root Exudates Enhance Peat Decomposition?. Geomicrobiology Journal, 2012, 29, 374-378.	2.0	67
85	Hydrology of a headwater basin wetland: Groundwater discharge and wetland maintenance. Hydrological Processes, 1990, 4, 387-400.	2.6	66
86	Methane efflux from boreal wetlands: Theory and testing of the ecosystem model Ecosys with chamber and tower flux measurements. Global Biogeochemical Cycles, 2002, 16, 2-1-2-16.	4.9	66
87	The global carbon cycle in the Canadian Earth system model (CanESM1): Preindustrial control simulation. Journal of Geophysical Research, 2010, 115, .	3.3	66
88	Total waterborne carbon export and DOC composition from ten nested subarctic peatland catchmentsâ€"importance of peatland cover, groundwater influence, and interâ€annual variability of precipitation patterns. Hydrological Processes, 2013, 27, 2280-2294.	2.6	64
89	Surface Level and Water Table Fluctuations in a Subarctic Fen. Arctic and Alpine Research, 1991, 23, 303.	1.3	62
90	Ecohydrological feedbacks in peatlands: an empirical test of the relationship among vegetation, microtopography and water table. Ecohydrology, 2016, 9, 1346-1357.	2.4	62

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91	Evidence for a nonmonotonic relationship between ecosystemâ€scale peatland methane emissions and water table depth. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 826-835.	3.0	61
92	Using direct and indirect measurements of leaf area index to characterize the shrub canopy in an ombrotrophic peatland. Agricultural and Forest Meteorology, 2007, 144, 200-212.	4.8	60
93	A test of the Canadian land surface scheme (class) for a variety of wetland types. Atmosphere - Ocean, 2000, 38, 161-179.	1.6	59
94	Spring photosynthesis in a cool temperate bog. Global Change Biology, 2006, 12, 2323-2335.	9.5	58
95	Nutrient Flux and Retention in a Tropical Sand-Dune Succession. Journal of Ecology, 1990, 78, 664.	4.0	57
96	Controls on latent heat flux and energy partitioning at a peat bog in eastern Canada. Agricultural and Forest Meteorology, 2006, 140, 308-321.	4.8	57
97	Spatially explicit simulation of peatland hydrology and carbon dioxide exchange: Influence of mesoscale topography. Journal of Geophysical Research, 2008, 113, .	3.3	53
98	The biogeochemistry of pristine, headwater Precambrian shield watersheds: an analysis of material transport within a heterogeneous landscape. Biogeochemistry, 1993, 22, 37-79.	3.5	52
99	Mercury cycling in boreal ecosystems: The long-term effect of acid rain constituents on peatland pore water methylmercury concentrations. Geophysical Research Letters, 2001, 28, 1227-1230.	4.0	51
100	On the relationship between cloudiness and net ecosystem carbon dioxide exchange in a peatland ecosystem. Ecoscience, 2005, 12, 53-69.	1.4	51
101	The direct and indirect effects of inter-annual meteorological variability on ecosystem carbon dioxide exchange at a temperate ombrotrophic bog. Agricultural and Forest Meteorology, 2010, 150, 1402-1411.	4.8	51
102	A comparison of dynamic and static chambers for methane emission measurements from subarctic fens. Atmosphere - Ocean, 1991, 29, 102-109.	1.6	50
103	Controls on the fate and transport of methylmercury in a boreal headwater catchment, northwestern Ontario, Canada. Hydrology and Earth System Sciences, 2002, 6, 785-794.	4.9	48
104	Permafrost conditions in peatlands regulate magnitude, timing, and chemical composition of catchment dissolved organic carbon export. Global Change Biology, 2014, 20, 3122-3136.	9.5	47
105	The spatial and temporal relationships between CO2 and CH4 exchange in a temperate ombrotrophic bog. Atmospheric Environment, 2014, 89, 249-259.	4.1	47
106	Wetland and Lake Evaporation in the Low Arctic. Arctic and Alpine Research, 1986, 18, 195.	1.3	46
107	Hydrological effects on carbon cycles of Canadaâ€™s forests and wetlands. Tellus, Series B: Chemical and Physical Meteorology, 2006, 58, 16-30.	1.6	45
108	Overriding control of methane flux temporal variability by water table dynamics in a Southern Hemisphere, raised bog. Journal of Geophysical Research G: Biogeosciences, 2015, 120, 819-831.	3.0	44

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109	Runoff generation in a low Arctic drainage basin. Journal of Hydrology, 1988, 101, 213-226.	5.4	43
110	Effects of long-term fertilization on peat stoichiometry and associated microbial enzyme activity in an ombrotrophic bog. Biogeochemistry, 2016, 129, 149-164.	3.5	42
111	Sinks and sources of methylmercury in a boreal catchment. Biogeochemistry, 1998, 41, 277-291.	3.5	40
112	Temperature the dominant control on the enzyme-latch across a range of temperate peatland types. Soil Biology and Biochemistry, 2016, 97, 121-130.	8.8	40
113	Biodegradability of Vegetation-Derived Dissolved Organic Carbon in a Cool Temperate Ombrotrophic Bog. Ecosystems, 2016, 19, 1023-1036.	3.4	40
114	Methane dynamics of a northern boreal beaver pond. Ecoscience, 1999, 6, 577-586.	1.4	38
115	Do pool surface area and depth control CO₂ and CH₄ fluxes from an ombrotrophic raised bog, James Bay, Canada?. Journal of Geophysical Research, 2009, 114, .	3.3	38
116	Spatial and temporal variations of methane flux measured by autochambers in a temperate ombrotrophic peatland. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 864-880.	3.0	37
117	Prompt active restoration of peatlands substantially reduces climate impact. Environmental Research Letters, 2019, 14, 124030.	5.2	37
118	The Northern Wetlands Study (NOWES): An overview. Journal of Geophysical Research, 1994, 99, 1423.	3.3	36
119	Continuous measurement of the depth of water table (inundation) in wetlands with fluctuating surfaces. Hydrological Processes, 1991, 5, 399-403.	2.6	35
120	Dynamics and chemistry of dissolved organic carbon in Precambrian Shield catchments and an impounded wetland. Canadian Journal of Fisheries and Aquatic Sciences, 2003, 60, 612-623.	1.4	35
121	Carbon release from boreal peatland open water pools: Implication for the contemporary C exchange. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 207-222.	3.0	34
122	Estimating Peatland Water Table Depth and Net Ecosystem Exchange: A Comparison between Satellite and Airborne Imagery. Remote Sensing, 2018, 10, 687.	4.0	33
123	Scaling relationships for event water contributions and transit times in smallâ€forested catchments in Eastern Quebec. Water Resources Research, 2012, 48, .	4.2	32
124	Dissolved organic carbon and total dissolved nitrogen production by boreal soils and litter: the role of flooding, oxygen concentration, and temperature. Biogeochemistry, 2014, 118, 35-48.	3.5	32
125	Spatial and temporal dynamics of mercury in Precambrian Shield upland runoff. Biogeochemistry, 2001, 52, 13-40.	3.5	31
126	Seasonal contribution of CO2fluxes in the annual C budget of a northern bog. Global Biogeochemical Cycles, 2003, 17, .	4.9	31

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127	Simulation of six years of carbon fluxes for a sedgeâ€dominated oligotrophic minerogenic peatland in Northern Sweden using the McGill Wetland Model (MWM). Journal of Geophysical Research G: Biogeosciences, 2013, 118, 795-807.	3.0	31
128	The biophysical climate mitigation potential of boreal peatlands during the growing season. Environmental Research Letters, 2020, 15, 104004.	5.2	31
129	Issues Related to Incorporating Northern Peatlands into Global Climate Models. Geophysical Monograph Series, 0, , 19-35.	0.1	30
130	Corrigendum to "Peatlands and the carbon cycle: from local processes to global implications a synthesis" published in Biogeosciences, 5, 1475â€“1491, 2008. Biogeosciences, 2008, 5, 1739-1739.	3.3	29
131	Predicting peatland carbon fluxes from nonâ€destructive plant traits. Functional Ecology, 2017, 31, 1824-1833.	3.6	28
132	Environmental correlates of peatland carbon fluxes in a thawing landscape: do transitional thaw stages matter?. Biogeosciences, 2015, 12, 3119-3130.	3.3	27
133	Focus on the impact of climate change on wetland ecosystems and carbon dynamics. Environmental Research Letters, 2016, 11, 100201.	5.2	27
134	Soil nitrogen determines greenhouse gas emissions from northern peatlands under concurrent warming and vegetation shifting. Communications Biology, 2019, 2, 132.	4.4	27
135	The essential carbon service provided by northern peatlands. Frontiers in Ecology and the Environment, 2022, 20, 222-230.	4.0	27
136	Dealing with microtopography of an ombrotrophic bog for simulating ecosystem-level CO2 exchanges. Ecological Modelling, 2011, 222, 1038-1047.	2.5	26
137	Using MODIS derived <i>f</i>PAR with ground based flux tower measurements to derive the light use efficiency for two Canadian peatlands. Biogeosciences, 2009, 6, 225-234.	3.3	25
138	SEASONAL AND INTER-ANNUAL DECOMPOSITION, MICROBIAL BIOMASS, AND NITROGEN DYNAMICS IN A CANADIAN BOG. Soil Science, 2005, 170, 902-912.	0.9	24
139	Estimating carbon dioxide exchange rates at contrasting northern peatlands using MODIS satellite data. Remote Sensing of Environment, 2013, 137, 234-243.	11.0	24
140	Phenology and its role in carbon dioxide exchange processes in northern peatlands. Journal of Geophysical Research G: Biogeosciences, 2014, 119, 1370-1384.	3.0	24
141	Errors in greenhouse forcing and soil carbon sequestration estimates in freshwater wetlands: a comment on Mitsch et al. (2013). Landscape Ecology, 2014, 29, 1481-1485.	4.2	23
142	Airborne Hyperspectral Evaluation of Maximum Gross Photosynthesis, Gravimetric Water Content, and CO2 Uptake Efficiency of the Mer Bleue Ombrotrophic Peatland. Remote Sensing, 2018, 10, 565.	4.0	23
143	Drainage reduces the resilience of a boreal peatland. Environmental Research Communications, 2020, 2, 065001.	2.3	23
144	A stochastic appraisal of the annual carbon budget of a large circumboreal peatland, Rapid River Watershed, northern Minnesota. Global Biogeochemical Cycles, 1998, 12, 715-727.	4.9	21

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145	Holocene climate and carbon cycle dynamics: Experiments with the â€œgreenâ€•McGill Paleoclimate Model. Global Biogeochemical Cycles, 2005, 19, .	4.9	19
146	Light use efficiency of peatlands: Variability and suitability for modeling ecosystem production. Remote Sensing of Environment, 2016, 183, 239-249.	11.0	19
147	Stormflow Production in a Headwater Basin Swamp. Hydrology Research, 1991, 22, 161-174.	2.7	19
148	Stemflow and throughfall in a tropical dry forest. Earth Surface Processes and Landforms, 1990, 15, 55-61.	2.5	18
149	Simulating the Carbon Cycling of Northern Peatlands Using a Land Surface Scheme Coupled to a Wetland Carbon Model (CLASS3W-MWM). Atmosphere - Ocean, 2012, 50, 487-506.	1.6	17
150	Can boreal peatlands with pools be net sinks for CO ₂ ?. Environmental Research Letters, 2015, 10, 035002.	5.2	17
151	Sea breezes and advective effects in southwest James Bay. Journal of Geophysical Research, 1994, 99, 1623.	3.3	16
152	Effect of inundation, oxygen and temperature on carbon mineralization in boreal ecosystems. Science of the Total Environment, 2015, 511, 381-392.	8.0	16
153	Lichens: A limit to peat growth?. Journal of Ecology, 2018, 106, 2301-2319.	4.0	16
154	The importance of Northern Peatlands in global carbon systems during the Holocene. Climate of the Past, 2009, 5, 683-693.	3.4	16
155	Illustration of the spatial variability of light entering a lake using an empirical model. Hydrobiologia, 1984, 109, 67-74.	2.0	15
156	Peatland Microbial Community Composition Is Driven by a Natural Climate Gradient. Microbial Ecology, 2020, 80, 593-602.	2.8	15
157	Terrestrial Biosphere-Atmosphere Exchange in High Latitudes. , 1994, , 165-178.		15
158	THE HYDROLOGICAL ROLE OF PEATâ€€COVERED WETLANDS. Canadian Geographer / Geographie Canadien, 1990, 34, 82-83.	1.5	14
159	Modelling groundwater-surface water mixing in a headwater wetland: implications for hydrograph separation. Hydrological Processes, 2000, 14, 2697-2710.	2.6	14
160	The Spatial Heterogeneity of Vegetation, Hydrology and Water Chemistry in a Peatland with Open-Water Pools. Ecosystems, 2019, 22, 1352-1367.	3.4	14
161	Increases in aboveground biomass and leaf area 85 years after drainage in a bog. Botany, 2014, 92, 713-721.	1.0	13
162	Effect of open water pools on ecosystem scale surface-atmosphere carbon dioxide exchange in a boreal peatland. Biogeochemistry, 2015, 124, 291-304.	3.5	12

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163	Low Arctic Wetland Hydrology. Canadian Water Resources Journal, 1986, 11, 69-75.	1.2	11
164	Spectral distribution of light under a subarctic winter lake cover. Hydrobiologia, 1986, 134, 89-95.	2.0	11
165	Simulating carbon dioxide exchange in boreal ecosystems flooded by reservoirs. Ecological Modelling, 2016, 327, 1-17.	2.5	11
166	Latitude, Elevation, and Mean Annual Temperature Predict Peat Organic Matter Chemistry at a Global Scale. Global Biogeochemical Cycles, 2022, 36, .	4.9	11
167	Impact of long-term drainage on summer groundwater flow patterns in the Mer Bleue peatland, Ontario, Canada. Hydrology and Earth System Sciences, 2013, 17, 3485-3498.	4.9	10
168	Modeling surface energy fluxes and thermal dynamics of a seasonally ice-covered hydroelectric reservoir. Science of the Total Environment, 2016, 550, 793-805.	8.0	10
169	Sampling of Snow and Ice on Lakes. Arctic, 1984, 37, .	0.4	10
170	Solid phase controls of dissolved aluminum within upland Precambrian shield catchments. Biogeochemistry, 1994, 26, 85-114.	3.5	9
171	Title is missing!. Water, Air and Soil Pollution, 2001, 1, 447-454.	0.8	9
172	Academic Performance Indicators for Departments of Geography in the United States and Canada. Professional Geographer, 2013, 65, 433-450.	1.8	9
173	Post-thaw variability in litter decomposition best explained by microtopography at an ice-rich permafrost peatland. Arctic, Antarctic, and Alpine Research, 2018, 50, .	1.1	9
174	Mechanisms for the Development of Microform Patterns in Peatlands of the Hudson Bay Lowland. Ecosystems, 2020, 23, 741-767.	3.4	9
175	Boreal forests' carbon stores need better management. Nature, 2009, 462, 276-276.	27.8	8
176	Comparison of plant litter and peat decomposition changes with permafrost thaw in a subarctic peatland. Plant and Soil, 2017, 417, 197-216.	3.7	8
177	Modelling CO2 emissions from water surface of a boreal hydroelectric reservoir. Science of the Total Environment, 2018, 612, 392-404.	8.0	8
178	Dissolved organic carbon in streams within a subarctic catchment analysed using a GIS/remote sensing approach. PLoS ONE, 2018, 13, e0199608.	2.5	8
179	Modelling the habitat preference of two key <i>Sphagnum</i> species in a poor fen as controlled by capitulum water content. Biogeosciences, 2020, 17, 5693-5719.	3.3	8
180	Controls on autotrophic and heterotrophic respiration in an ombrotrophic bog. Biogeosciences, 2022, 19, 3285-3303.	3.3	8

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